

Alewife Sewer Separation Project Huron A Neighborhood Inflow Removal Meeting – June 7, 2012

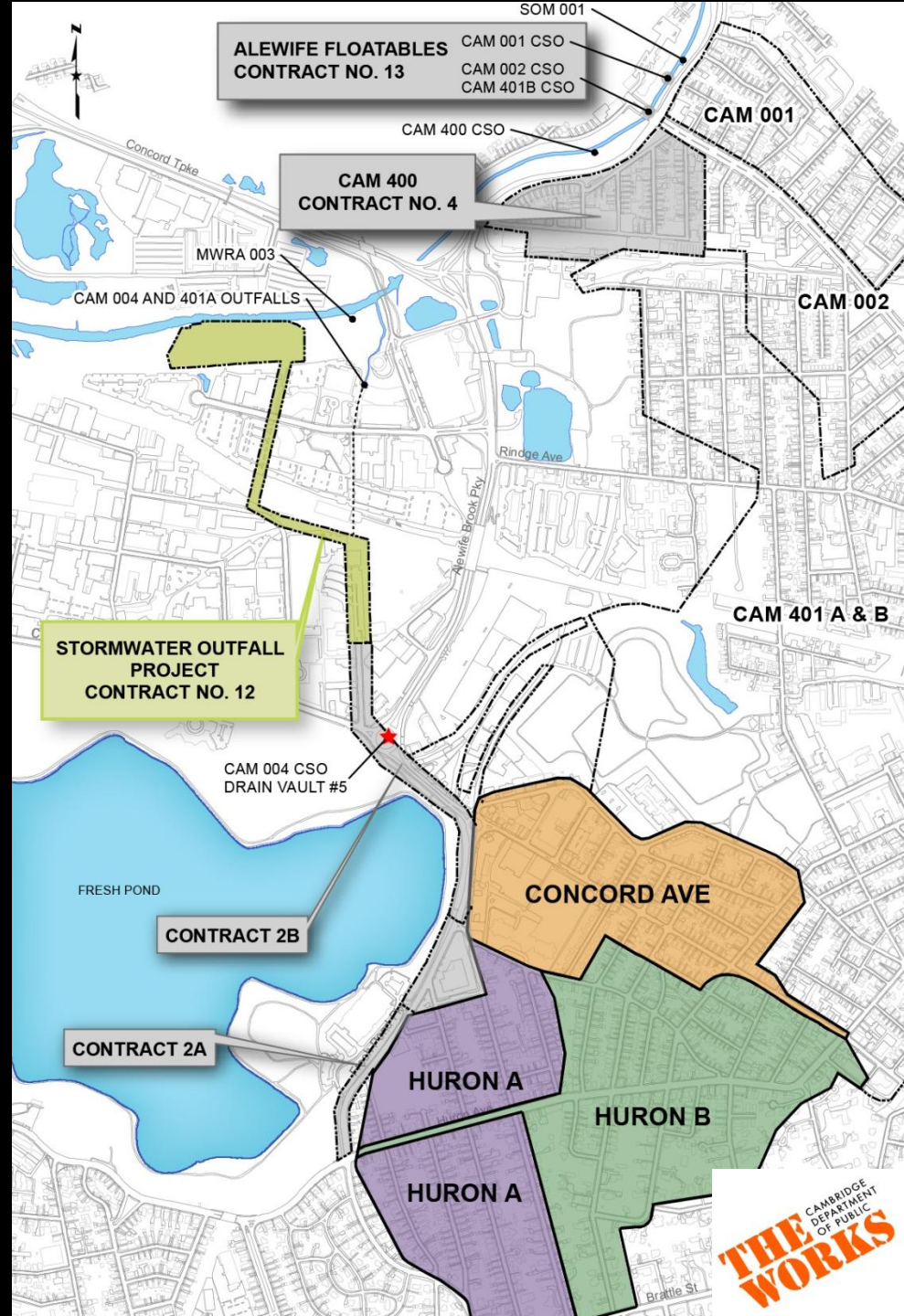


Alewife Sewer Separation Project Huron A Neighborhood Inflow Removal Meeting – June 7, 2012

- **Welcome and Introduction** **Catherine Woodbury**
 - **Project Goals and Benefits**
 - **What Is Inflow**
 - **Why Remove Inflow**
- **Private Property Inflow Removal** **Owen O’Riordan**
 - **Why Your Property**
 - **What to Expect**
 - **Next Steps**
 - **Timeline**

Goals

- Court-ordered clean up of Boston Harbor requires implementation of the Long Term Control Plans for Combined Sewer Overflow (CSO) for Alewife Brook
- MWRA's LTCP for Alewife Brook
 - 50 Mg → 7.3 Mg
 - 63 activations → 7 activations



Benefits of Sewer Separation

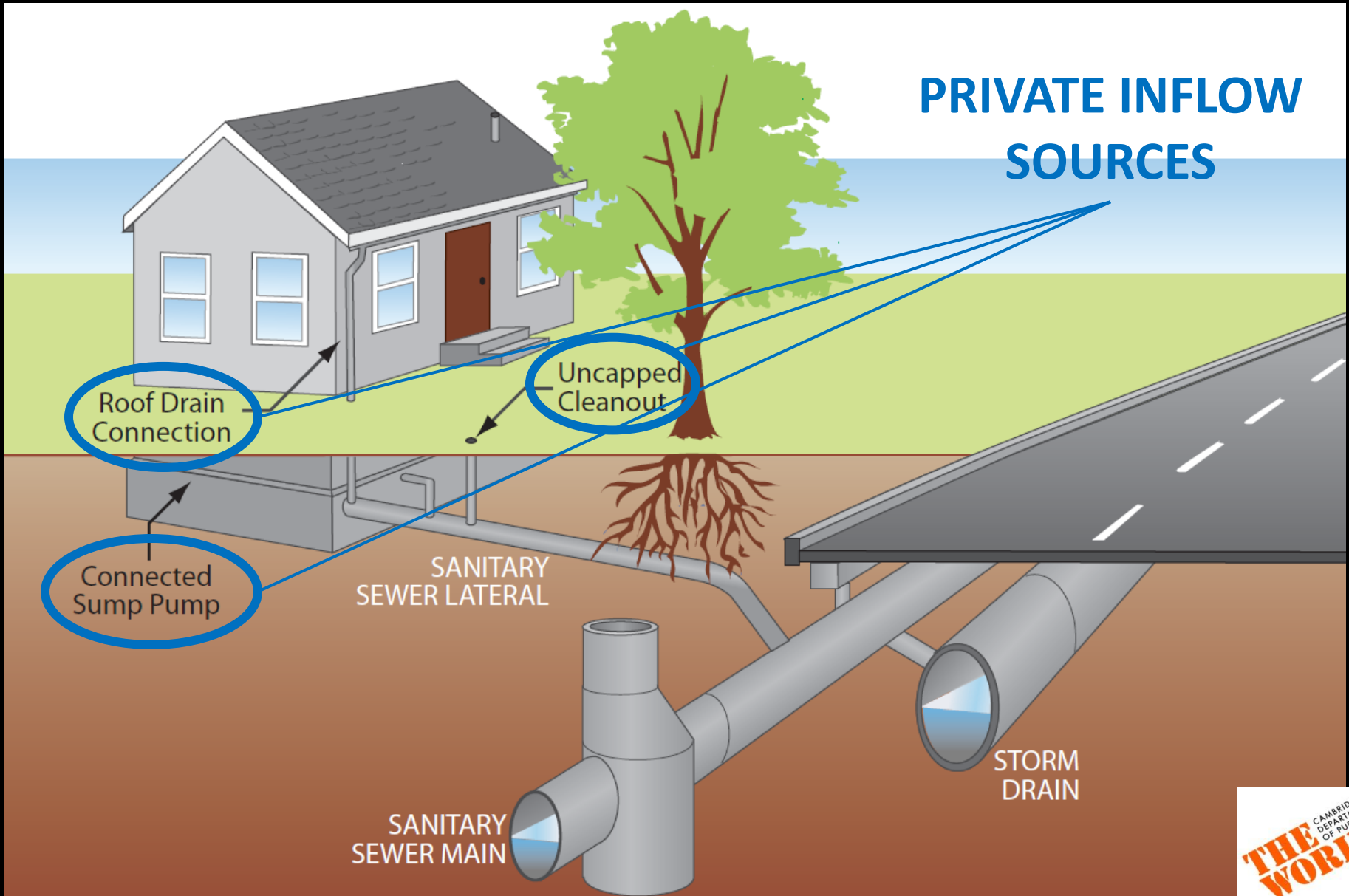
- Improve water quality of Alewife Brook
- Improve sewer and stormwater systems level of service
- Protect Fresh Pond
- Reduced treatment costs
- Opportunity for other renewed/improved neighborhood infrastructure



What Is Inflow?

- Inflow is rain or groundwater that flows into a sanitary sewer system from public or private property.
- Common sources of inflow from private property:
 - “Disappearing” downspouts
 - Internal roof drains
 - Area/driveway drains
 - Sump pumps connected to sewer

What Is Inflow?



What Is Inflow?



Downspout/roof leader going into basement foundation



Downspout/roof leaders disappearing



What Is Inflow?



**Sump pump
hard-piped to
sanitary service**



Floor drain



Driveway Catch Basin

Why Remove Inflow?

- Reduces probability of sewer backups
- Inflow causes increased pollution of Alewife Brook
- Reduced cost of sewage treatment for entire community



Private Property Inflow Removal: Why Your Property

- Collected data through Field Investigations and Building Inspections
- Performed hydraulic analysis to determine how much inflow must be removed
- Performed a feasibility analysis to determine which sources should be targeted



Building Inspections



City of Cambridge

Information on Building Inspections for Sewer Separation Program for the Huron A, Huron B and Concord Ave. Neighborhoods

To Schedule an Appointment for a Building Inspection please call:

Christine Clancy - 617-594-1316 or
Email - christine.clancy@camcon.com

If you have any questions please feel free to contact Catherine Daly Woodbury at the City of Cambridge:

Catherine Daly Woodbury, Project Manager
City of Cambridge DPW - 617-349-4818

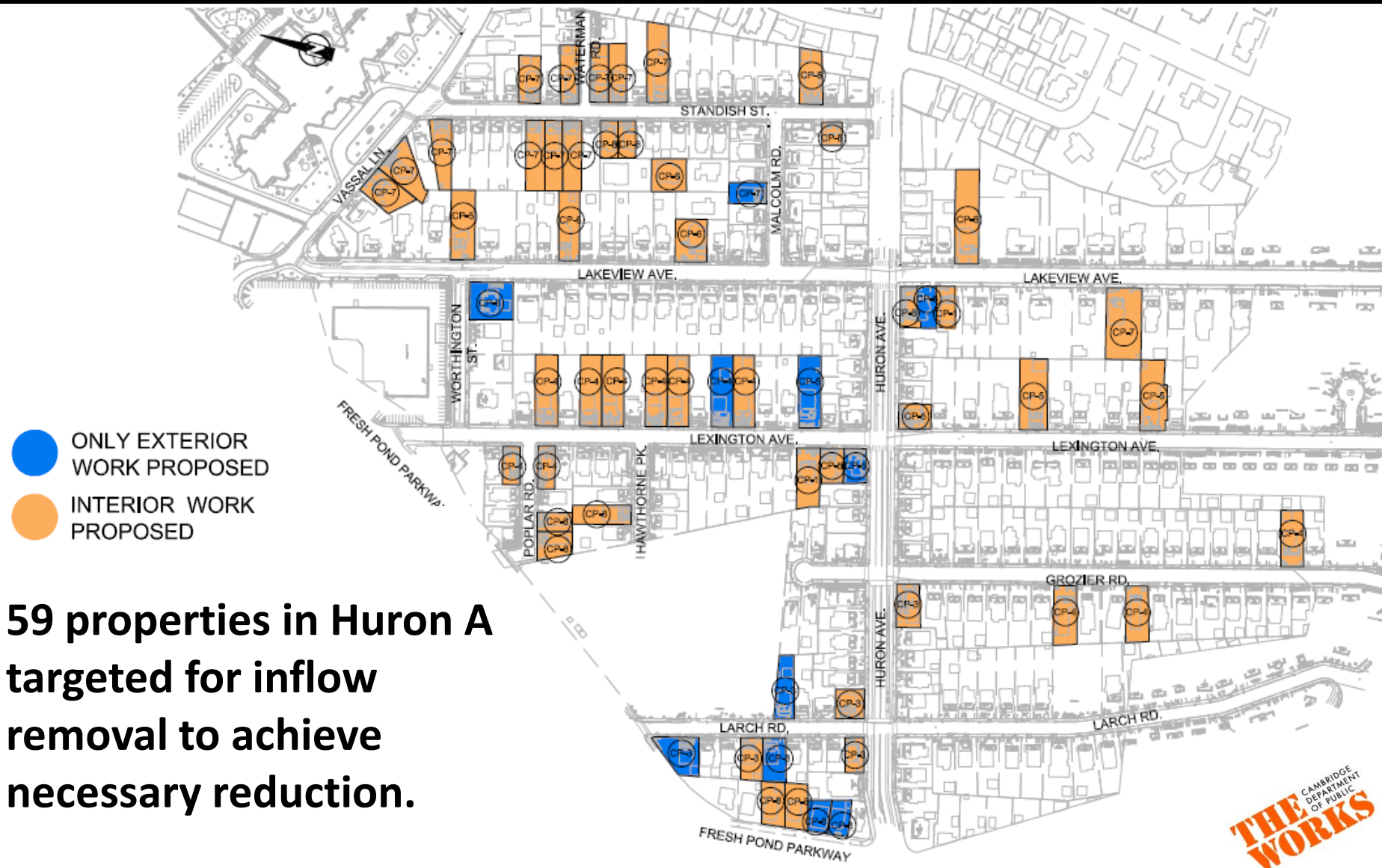
	Huron A	Project-wide
Total Buildings	297	954
Buildings Inspected	258	684
Buildings with Confirmed Inflow Sources	87	231
Buildings Targeted for Feasible Inflow Removal	59	173

- Developed conceptual design sketches; feasibility assessment
- Developed construction cost estimate

PUMP USED:	STORM	QUANTITY	2	HP	1/2	PIPE SIZE	1.5	GPM	UNK	VOLTS	UNK
	SANITARY	QUANTITY		HP		PIPE SIZE		GPM		VOLTS	
IS PUMP HARD PIPED TO DISCHARGE?	YES	NO		(SUMP FREQUENCY) DAILY - WEEKLY - MONTHLY - SEASONAL							
DISTANCE FROM TOP OF FOUNDATION TO SANITARY SERVICE. (CLEAN OUT CAP) 6.5 (ft)											
DISTANCE FROM TOP OF FOUNDATION TO WATER SERVICE: 6.1 (ft)											
DISTANCE FROM TOP OF FOUNDATION TO GAS SERVICE: 5.1 (ft)											
FIELD OBSERVATION		EXISTS Y/N		DISCHARGE LOC.						INFO.*	
SANITARY SERVICE: DIA 4 IN.		Y		SS	CS	SD	---	---	UNK	R	D C
GUTTER / DOWNSPOUT:		Y		SS	CS	SD	D/WELL	SURF.	UNK	R	D C
FLAT ROOF DRAIN:		N		SS	CS	SD	D/WELL	---	UNK	R	D C
STORM/SUMP PUMP:		Y		SS	CS	SD	D/WELL	SURF.	UNK	R	D C
SANITARY/GRINDER PUMP:		N		SS	CS	SD	---	---	UNK	R	D C
DRIVEWAY DRAIN:		N		SS	CS	SD	D/WELL	---	UNK	R	D C
AREA DRAIN:		Y		SS	CS	SD	D/WELL	---	UNK	R	D C
WATER SERVICE MAT.: DIA 1 IN.		COPPER		STEEL/LEAD		OTHER		UNKNOWN			
*INFORMATION SOURCE: (R)-RECORD INFORMATION, (D)-DYE TEST & (C)-INFORMATION FROM CONTACT											
SANITARY PIPE, WATER, GAS, AREA DRAINS & PUMP LOCATIONS						DOWNSPOUT LOCATIONS:					
See Attached						See Attached					



Private Property Inflow Removal: Huron A Targeted Properties



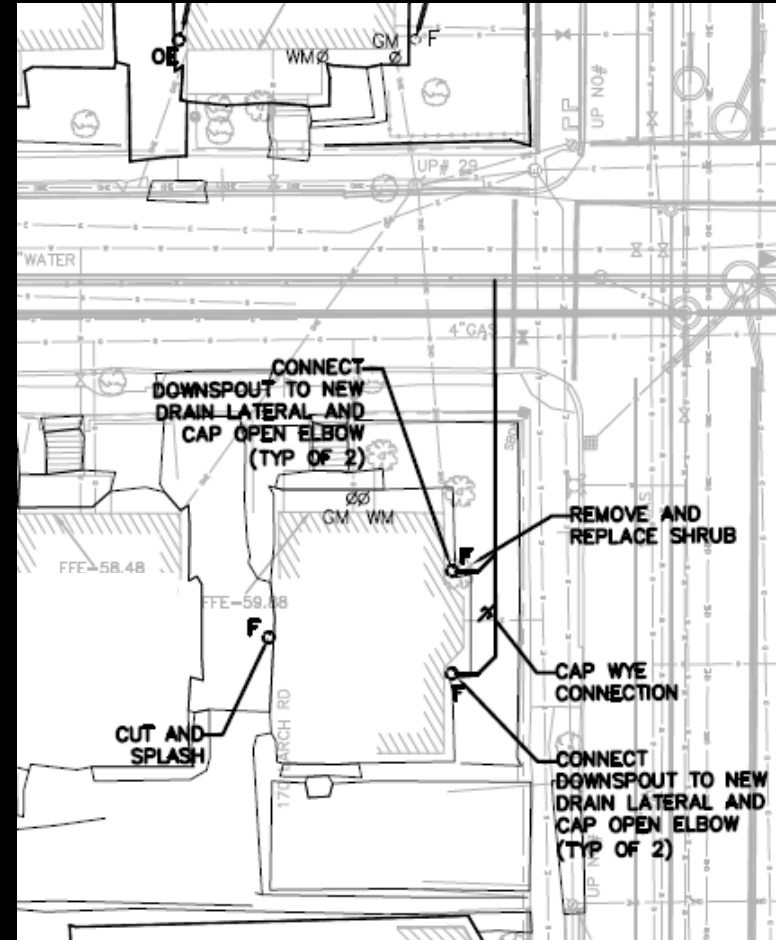
What to Expect: How Is Inflow Removed?

1. Discharge to surface:

- Cut downspouts and splash onto property and cap open elbows

2. If not possible, connect to new storm drain service:

- Reconnect downspouts
- Disconnect/reconnect sump pumps
- Install new drywells with overflow to drain



What to Expect: How Is Inflow Removed?



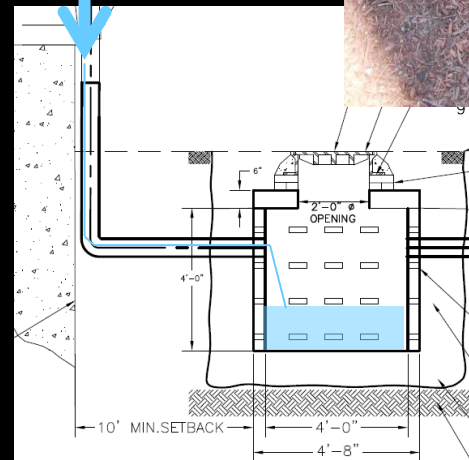
Downspouts disconnected. Elbow capped.



Drywell
installed with
overflow to the
storm drain.



From
Downspout



Overflow to
Storm Drain
(if needed)

Drywell cross-section.

What to Expect: How Is Inflow Removed?



Before: Downspout disappeared into foundation; connected to sewer



After: Downspout reconnected to new drain lateral with cleanout access. Sidewalk, driveway restored.

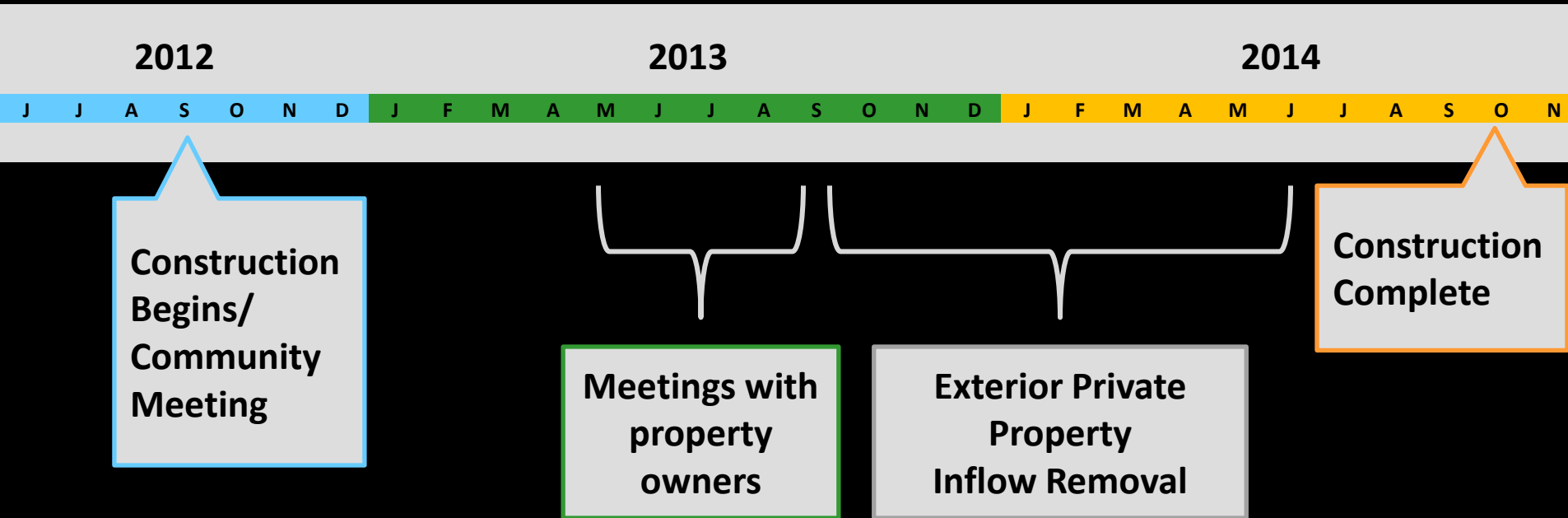


Next Steps

- Individual Information Package by mail
- Pre-construction Community Meeting
- Meet with each property owner at least 6 weeks prior to construction to:
 - Finalize conceptual plan
 - Right of Entry documents
- Inflow removal construction to occur in two phases:
 - Exterior inflow removal with public construction
 - Interior plumbing future contract (**where required**)

Construction Timeline: Huron A

(Anticipated)



Interior construction (where necessary) done under separate contract.
Anticipated start Spring 2014.

Contact Information

- **Questions, Comments or Suggestions**
 - Catherine Daly Woodbury, Project Manager
617-349-4818 cwoodbury@CambridgeMA.gov
 - Kelly Dunn, Community Relations Manager
617-349-4870 kdunn@CambridgeMA.gov
- **24-Hour Emergency Assistance**
 - Cambridge DPW at 617-349-4800
- **Information on City Web Site**
 - www.cambridgema.gov/theworks/cityprojects.aspx,
under *Alewife Sewer Separation Project: Huron A
Neighborhood*

Questions